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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte NORIKAZU ENDO and BENJAMIN K. REAVES

Appeal 2009-007203
Application 10/661,152
Technology Center 2600

Before ROBERT E. NAPPI, KENNETH W. HAIRSTON, and
MAHSHID D. SAADAT, *Administrative Patent Judges*.

HAIRSTON, *Administrative Patent Judge*.

DECISION ON APPEAL¹

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

This is an appeal under 35 U.S.C. §§ 6(b) and 134(a) from the final rejection of claims 1, 3 to 15, 17 to 28, 30 to 40, and 42 to 61. Claims 2, 16, 29, and 41 have been canceled.

We reverse.

STATEMENT OF THE CASE

The disclosed invention relates to a system and method for adjusting a voice prompt based on a state (e.g., emotions) of a user of the system including obtaining a user's utterance, utterance parameters indicating a user's state, determining the user's state based on the utterance parameters, and adjusting a voice prompt (Spec. ¶ [0001], [0005]-[0011]; Abstract; claims 1, 15, 28, 40, and 53). Utterance parameters are obtained by (i) partitioning an utterance into segments, and (ii) assigning a classification to each segment, where each classification corresponds to at least one user state (e.g., emotion) (claims 1, 15, 28, 40, and 53; Spec. ¶¶ [0020]-[0023]).

Claim 1 is representative of the claimed invention, with emphasis added to argued portions, and reads as follows:

1. A method of adjusting a voice prompt of a system based upon a state of a user of the system, the method comprising:

receiving an utterance of the user;

obtaining utterance parameters from the utterance, the utterance parameters indicating the state of the user;

determining the state of the user based upon the utterance parameters;
and

adjusting the voice prompt by adjusting at least one of a tone of voice of the voice prompt, a content of the voice prompt, a prosody of the voice prompt, and a gender of the voice prompt based upon the determined state of the user, wherein obtaining utterance parameters comprises:

partitioning the utterance into segments; and

assigning one of a plurality of classifications to each segment, each classification corresponding to at least one of a plurality of states of the user.

(Claim 1 (emphasis added)).

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Pelland	US 2002/0029203 A1	Mar. 7, 2002
Cooper	US 6,757,362 B1	June 29, 2004
		(filed Mar. 6, 2000)

Millie, *Driver-Friendly Assistance System Interface*, March 14, 2002, pp. 1-89.

(i) The Examiner rejected claims 1, 3 to 6, 8, 10, 11, 15, 17 to 19, 21, 23, 24, 28, 30 to 32, 34, 36, 40, 42 to 46, 48, 49, 53 to 56, 58, and 60 under 35 U.S.C. § 102(e) based upon the teachings of Cooper.

(ii) The Examiner rejected claims 7, 9, 20, 22, 33, 35, 47, 57, and 59 under 35 U.S.C. § 103(a) based upon the teachings of Cooper and Pelland.

(iii) The Examiner rejected claims 12 to 14, 25 to 27, 37 to 39, 50 to 52, and 61 under 35 U.S.C. § 103(a) based upon the teachings of Cooper and Millie.

With regard to the anticipation rejection of claims 1, 3 to 6, 8, 10, 11, 15, 17 to 19, 21, 23, 24, 28, 30 to 32, 34, 36, 40, 42 to 46, 48, 49, 53 to 56, 58, and 60, the Examiner relies upon Cooper as disclosing the features

recited in these claims of obtaining utterance parameters by (i) partitioning an utterance into segments, and (ii) assigning classifications corresponding to a user state to each segment (Ans. 3-4). Specifically, the Examiner cites column 2, lines 58 to 64 and column 43, line 52 to column 44, line 6 of Cooper (*see* Ans. 3-4 and 8-10) as disclosing the recited step of obtaining utterance parameters by partitioning utterances into segments and assigning classifications to them. The Examiner also contends that generating an utterance parameter vector is inherently disclosed in Cooper (Ans. 10). The Examiner concludes that training data is stored in a database in Cooper in the form of vectors (Ans. 10).

Appellants argue, *inter alia*, (App. Br. 14-19; Reply Br. 2-6) that the applied reference to Cooper fails to teach or suggest (i) *how* a user's emotional state can be determined based on utterance information, (ii) that each segment of an utterance is assigned a classification indicating a user's state, and (iii) that obtaining utterance parameters indicating a user's state by partitioning utterances into segments and assigning a classification to a segment is not *inherent* in the disclosure of Cooper. More specifically, Appellants argue (App. Br. 18) that Cooper fails to disclose that each segment of an utterance is assigned to a classification indicating a user's state as recited in claims 1, 15, 28, 40, and 53.

Although Cooper discloses a method (col. 1, ll. 11-17), which is similar to Appellants' disclosed invention for adjusting a voice prompt (Spec. ¶¶ [0005]-[0011], [0020]-[0023]), Cooper is silent as to obtaining utterance parameters by partitioning utterances into segments and then assigning a classification corresponding to a user's state to each segment as set forth in claims 1, 15, 28, 40, and 53 on appeal. The Examiner has not

sufficiently shown how or why Cooper's determination of an emotional state is the same, whether inherently or expressly, as breaking an utterance up into constituent pieces and then operating on each piece.

Based on our finding with respect to Cooper, we agree with Appellants (App. Br. 18) that Cooper fails to disclose that each segment of an utterance is assigned to a classification indicating a user's state as recited in claims 1, 15, 28, 40, and 53. Cooper's determination of an emotional state based on a single utterance does not anticipate Appellants' partitioning of utterances into segments and subsequent assignment of a user state classification to each segment. The features of (i) partitioning an utterance into segments, and (ii) assigning classifications corresponding to a user state to each segment, are simply missing from Cooper, and the Examiner has not shown that such a feature is inherent in the operation of Cooper.

Thus, with respect to the voice prompt adjusting method and system recited in independent claims 1, 15, 28, 40, and 53, Cooper fails to teach the limitation common to each of these claims of obtaining utterance parameters including assigning each segment a classification to assist with determining a user's state. It follows that the Examiner has not established anticipation, because Cooper does not disclose each and every limitation of the claimed invention set forth in independent claims 1, 15, 28, 40, and 53. *Atlas Powder Co. v. IRECO, Inc.*, 190 F.3d 1342, 1347 (Fed. Cir. 1999); *In re Paulsen*, 30 F.3d 1475, 1478-79 (Fed. Cir. 1994).

The Examiner has not established a prima facie case of obviousness of the claimed subject matter set forth in dependent claims 7, 9, 12 to 14, 20, 22, 25 to 27, 33, 35, 37 to 39, 47, 50 to 52, 57, 59, and 61, since the teachings of Pelland and Millie fail to cure the noted shortcomings of

Cooper as set forth above with respect to claims 1, 15, 28, 40, and 53 from which these claims respectively depend. *See In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

The anticipation rejection of claims 1, 3 to 6, 8, 10, 11, 15, 17 to 19, 21, 23, 24, 28, 30 to 32, 34, 36, 40, 42 to 46, 48, 49, 53 to 56, 58, and 60 is not sustained because Cooper does not teach (i) partitioning an utterance into segments, and (ii) assigning classifications corresponding to a user state to each segment. The obviousness rejections of (i) claims 7, 9, 20, 22, 33, 35, 47, 57, and 59 over Cooper and Pelland, and (ii) claims 12 to 14, 25 to 27, 37 to 39, 50 to 52, and 61 over Cooper and Millie are not sustained because the Examiner's articulated reasoning concerning the teachings of Cooper and Pelland does not support a legal conclusion of obviousness (*KSR Int'l, v. Teleflex, Inc.*, 550 U.S. 398, 418 (2007)).

CONCLUSIONS

The Examiner erred in rejecting claims 1, 3 to 6, 8, 10, 11, 15, 17 to 19, 21, 23, 24, 28, 30 to 32, 34, 36, 40, 42 to 46, 48, 49, 53 to 56, 58, and 60 under 35 U.S.C. §102(e).

The Examiner erred in rejecting claims 7, 9, 12 to 14, 20, 22, 25 to 27, 33, 35, 37 to 39, 47, 50 to 52, 57, 59, and 61 under 35 U.S.C. §103(a).

ORDER

The Examiner's decision rejecting claims 1, 3 to 15, 17 to 28, 30 to 40, and 42 to 61 is reversed.

REVERSED

KIS

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